

Claims

1. An apparatus, having a housing (10, 12) and having at least one rotating component (16, 18), disposed in the housing (10, 12), which component is supported radially and/or axially in the housing (10, 12), the housing (10, 12) comprising lightweight metal, in particular aluminum or an aluminum alloy, and at least one part (10, 12) of the housing at least partly forming the bearing of the at least one component (16, 18), characterized in that the at least one housing part (10, 12), at least in the region of the bearing for the at least one component (16, 18), is provided with a coating (50) of a nickel alloy, which on its surface has an at least substantially plane microstructure.
2. The apparatus of claim 1, characterized in that the coating (50) comprises a nickel-phosphorus alloy.
3. The apparatus of claim 1 or 2, characterized in that the coating (50) is hardness-enhanced by tempering.
4. The apparatus of one of claims 1 through 3, characterized in that the housing part (10) has at least one bearing journal (24, 26), on which the at least one component (16, 18) is radially supported; and that at least the at least one journal (24, 26) is provided on its surface with the coating (50).
5. The apparatus of one of claims 1 through 4, characterized in that the housing part (10, 12) has a wall (21, 23; 15), which is disposed at least approximately perpendicularly to the pivot axis (25, 27) of the at least one component (16, 18), and which forms an axial bearing of the at least one component (16, 18); and that at least the wall (21, 23; 15) of the housing part (10, 12) is provided with the coating (50).

6. The apparatus of one of the foregoing claims, characterized in that this apparatus is a pump, and the at least one component (16, 18) is a pumping element of the pump.

8. The apparatus of claim 6, characterized in that the pump is a gear pump, and the at least one pumping element (16, 18) is a gear wheel.